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Arch. Baldwin

admitted March 15<sup>th</sup> 1819

John P. Salway

Admitted March 18th 1891

# Cynanche Trachealis

According to the Nosological arrange-  
ment of Dr. Chapman, this is a disease of the Res-  
piratory System. Agreeably to that of Dr. Cullen of the  
Order Phlegmasia, Genus the 10.<sup>th</sup> and Species the 3.<sup>d</sup> he  
defines it, "Cynanche respiratiois difficilis, inspi-  
ratione strepitante, voce rauca tussis clangora, tumor  
per se nullo in faucibus apparente, deglutitione  
parum difficile et febris Synocha".

It is supposed to be a disease of rather mo-  
-dern origin, antecedent to the period of Dr. Boerhaave &  
his illustrious contemporary Dr. Cullen, its nature  
and history were but partially acquainted with.  
To the former of these Physicians the merit has been  
ascribed of having first distinguished and accurately  
described it, he termed it Suffocatio Stordala;  
and divided it into two varieties, one he termed  
inflammatory, the other purulent. Since it has been  
mentioned by authors under various appellations,  
Dr. Cullen termed it Cynanche Trachealis, Professor  
Frank Trachetis, Dr. Alcock called it Angina  
Polyposa, or membranae, and Dr. Darwin consi-  
-dered it a pleurisy of the wind pipe. In England  
it is vulgarly termed Croup, or the racking of the  
lights, & in some parts of the U. States Hoars.



It attacks children of all ages from three months to five years old. But it occasionally attacks adults and children within the month. It is not supposed to be contagious, but is believed by some to be hereditary. Those who have once suffered an attack of it, are rendered more liable to it afterwards. It is sometimes Endemic, and has been known to prevail as an Epidemic, as was the case in the neighbourhood of Aboandua in the year seventeen hundred and ninety nine, when it is said to have been productive of considerable mortality. It is brought on by the same causes which induce Fever, particularly by a cold moist and terse atmosphere, and sudden vicissitudes of weather and it is thought not improbable that certain states of the alimentary canal may assist in producing it. It prevails more generally in the spring and winter, and those inhabiting marshy countries near the sea coast are thought to be more incident to it. It sometimes comes on suddenly, but it more frequently creeps on in the form of a common cold. The symptoms are sometimes constant, but they more generally remit, particularly during the day. The usual characteristic symptoms are. A short time previous to an attack, the patient



feels drowsy and inactive, the eyes are sometimes suffused, and heavy. There is a hoarseness and slight stertorous cough, which gradually increasing, acquires a peculiar shrill sound, resembling greatly the barking of a fox. At the same time if the patient is old enough to express his feelings, he complains of a sense of tightness about the larynx generally accompanied with some degree of pain. As the disease advances a constant difficulty of breathing prevails, accompanied with a swelling of the tonsils, *Uvula &c.* Respiration is performed with a wheezing sound, apparently from the passage of the air being straitened. The cough is generally dry, when there is any expectoration, frequently it has either a purulent appearance, marked with specks of florid blood, or seems to consist of films resembling portions of a membrane. The urine in the early stages of the disease is generally limpid, discharged in small quantities, and with difficulty, but in the progress of the disease it is discharged in greater quantity, become more turbid, and towards a favourable termination, generally deposits a copious sediment, which has been attributed to the absorption of purulent matter from the trachea. The bowels are generally costive





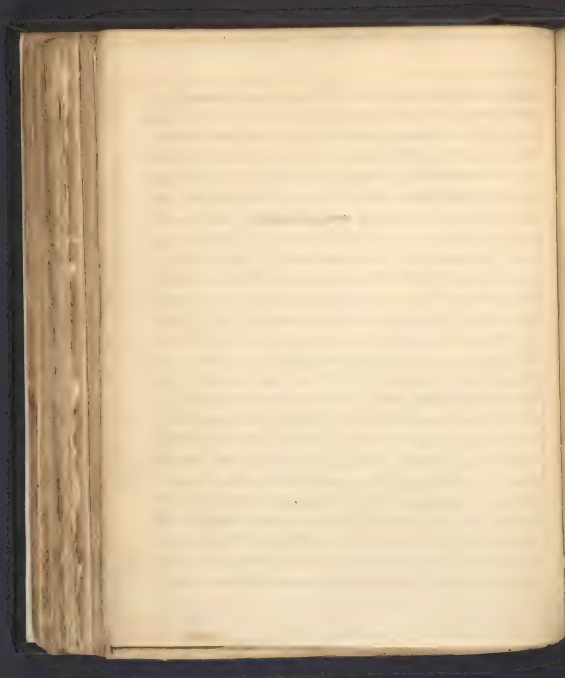
through the whole of the disease, and often much  
inflated, with these symptoms there is much thirst  
an uneasy sensation over the whole body, great  
restlessness and anxiety & frequency of the pulse, which  
as soon as the breathing <sup>becomes</sup> difficult is frequent, strong  
and hard; there is seldom any delirium, but a  
degree of coma frequently supervenes.

The disease generally runs its course in three  
or four days, but is occasionally protracted in  
a weak and chronic form for eight or ten  
days. When it terminates in death, it is generally  
by suffocation, induced either by spasm affecting  
the glottis, or by a quantity of matter blocking up  
the bronchus. But when it terminates in health,  
it is by a resolution of the inflammation, by  
a cessation of the spasms, and by a free expectora-  
tion of the matter exuding from the trachea.

Spontaneous flow of sweat has been regarded as  
a chief critical symptom, spontaneous vomiting  
and diarrhoea have also been attended with a mi-  
literation of the symptoms, the same has been ob-  
served from a discharge of phlegm from the  
nose, and Dr. Rush remarks he has frequently  
seen an eruption of little red blotches bring  
relief. The unfavourable symptoms are, consi-

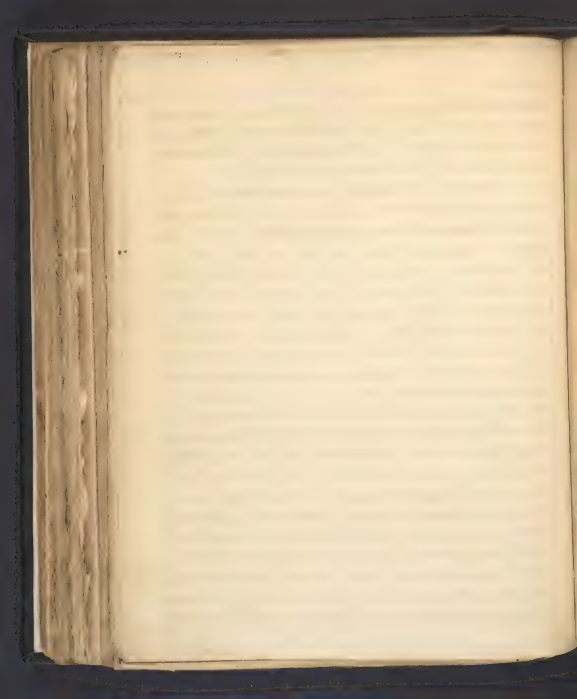


derable difficulty of breathing, great anxiety, in-  
sistent fever, no expectoration. The voice becoming  
more shrill. Upon dissection the trachea of those  
who have died of this disease exhibit different ap-  
pearances, there is sometimes only a slight degree  
of inflammation sometimes a thick matter re-  
sembling mucus, and occasionally a pectonate  
membrane lining but scarcely adhering  
to the trachea and often extending beyond its ter-  
mination into the branches of the bronchus. In  
some cases there are no traces of disease of any  
kind to be discovered, these cases it has been  
suggested have terminated by phlogism, the mor-  
bid excitement having transcended inflamma-  
tion. The appearances of the lungs as observed  
in tracheitis are also various, sometimes they  
are found, sometimes slightly inflamed, at  
other times there is a sanious matter extruded  
in different parts of them, sometimes the matter  
found in them is purulent, and sometimes  
merely a watery fluid. Polyious concretions it  
is said are frequently found in the vessels of the  
lungs, and the right side of the heart. They are  
supposed to be formed in articulo mortis,  
or immediately after death, and the reason of



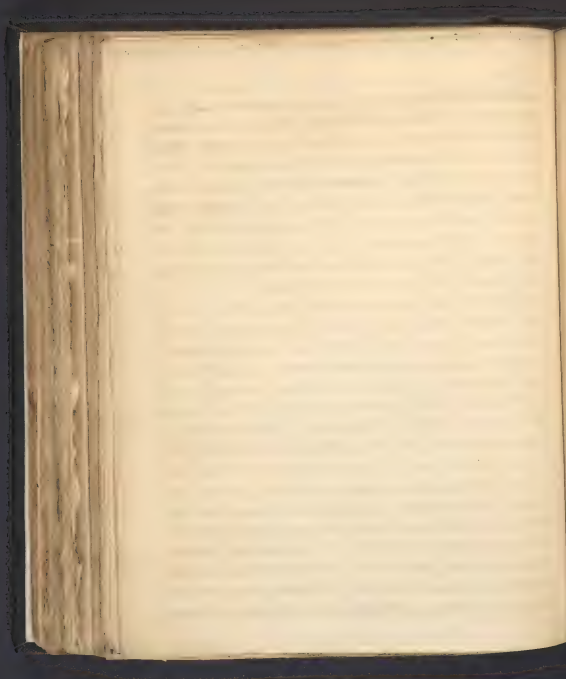
their not being found on the left side of the heart  
has been ascribed to the collection of the blood in  
the right caused by the difficulty of breathing  
and consequent impeded circulation.

Respecting the nature of this disease physicians  
have entertained a contrariety of opinion. It  
has been ascribed to an inflammation of the lungs.  
Dr. Home believed the pleuro-pneumonic membrane lining  
the trachea to be the cause of all the symptoms. He  
supposed this membrane to be formed from the  
condensation of the mucous fluid secreted by  
the glands of the trachea. Dr. Michaelis coincided  
in opinion with Dr. Home in regarding the pleuro-  
pneumonic membrane as the cause of the disease but  
maintained that the membrane was composed of  
lymph instead of being condensed mucus, and is  
therefore of the same nature with the polypous con-  
cretions found in the heart and large blood vessels.  
Dr. Rush is far from considering the membrane the  
cause of the disease regarded it merely as an  
adventitious circumstance supervening after the  
disease had lasted some time. The circumstance  
of this membrane having existed without occasion-  
ing any symptoms, and the symptoms ha-  
ving been observed when no membrane had been found  
are strong objections to the opinion of Dr. Home and



Stechialis. Dr. Cullen regarded the disease as arising from an inflammation of the larynx, combined with a spasmodic constriction of the glottis. To this opinion some objections have been urged. It has been asked why the disease chiefly affects children, and what proof there is of the spasms of the glottis. But it is obvious from the symptoms of the disease, and the appearances on dissection, that it is of an inflammatory nature during the first stage, and a spasmodic in its last.

From the analogy between the symptoms of croup and acute asthma, they have frequently been confounded, indeed they have been considered by some authors as one and the same disease but they are now generally regarded as distinct diseases, and Stecherialis has offered a diagnosis between them. He remarks all the convulsive affections are more violent in acute asthma than in croup, in the former also the difficulty of breathing is greater. The acute asthma makes its attack almost instantaneously, giving no warning of the approach, the croup comes on more gradually. In the acute asthma the peculiar shrillness of the voice, and the pain in the trachea increased on pressure, almost constant attendants on the former are never observed, the pulse in the acute asthma

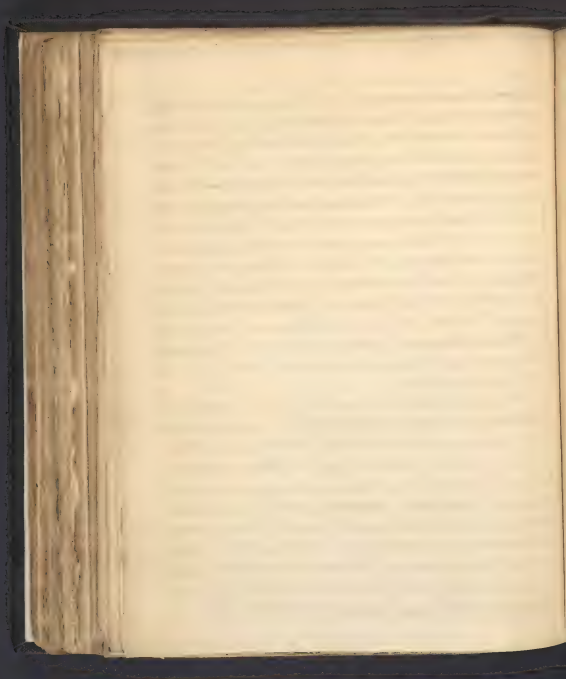




is small and contracted. In the croup at its commencement, hard, full & inflammatory, afterwards soft and weak. The acute asthma has frequent and perfect intermissions for hours and in some instances for days, without the least sensible discharge from the trachea, and it yields to antispasmodic remedies. The croup continues or increases without any remarkable remission or even abatement of the symptoms. It is accompanied with a discharge of mucus or phlegm from the trachea & does not yield to antispasmodics. Dr. Rush believed the diseases were distinct. In former the acute Asthma, by name Tracheitis Spasmodica, the croup he called by name Tracheitis humida.

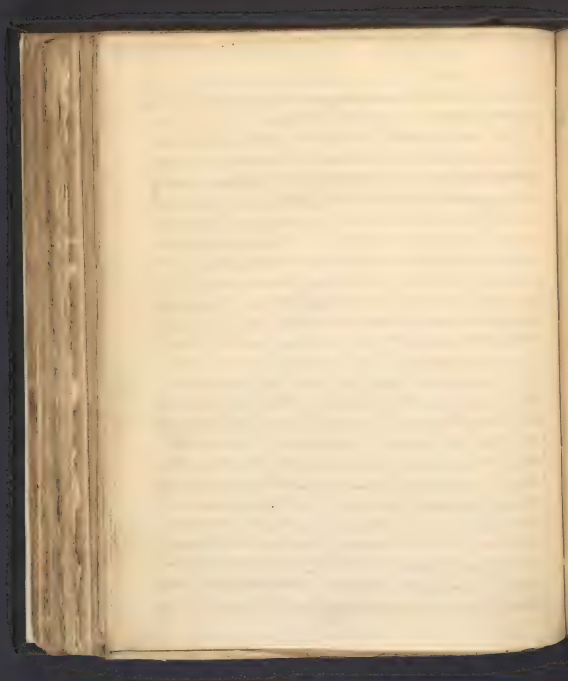
The symptoms arising from the introduction of foreign bodies into the trachea are sometimes so closely analogous to those of croup that Physicians have mistaken them for that disease.

Dr. Astruc has likewise given us a diagnosis. He says if the pain is seated in the trachea, or some of its branches, and frequently changes its place even just during coughing in the upper and at other times in the lower part of the trachea or if it occupy the trachea totally, but is extremely acute and circumscribed the case is

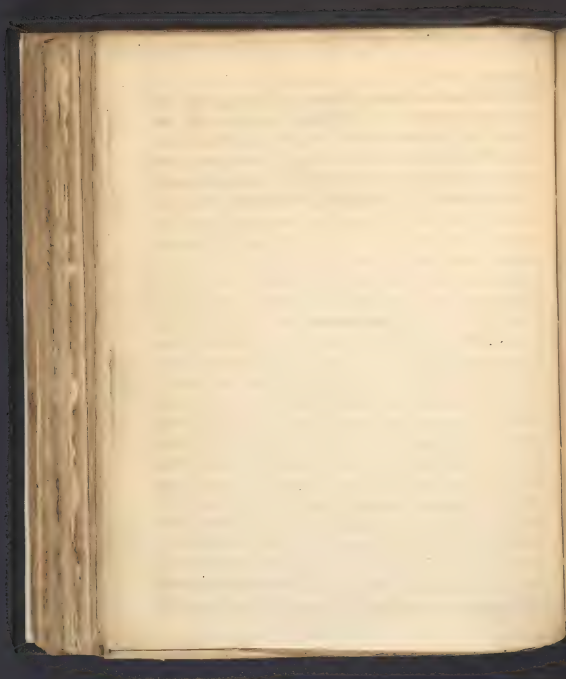


not to be regarded as drops, but as arising from  
an extravasation of blood in the trachea

With respect to the treatment of the disease un-  
der consideration Physicians have entertained  
almost as great a contrariety of opinion as they  
have regarding its nature. The subject of the  
controversy has been the propriety of bleeding  
and the extent to which it should be carried.  
While some have recommended bleeding ad de-  
liquium animi; others have denounced the  
use of the Lancet in toto. Dr. Home, Cullen and  
Michaelis were decided advocates for phlebotomy  
on the other hand Dr. Smith, Miller, and Dr. Rush  
in his first publication, were opposed to it.  
The Physicians of the U. S. are less divided in  
their opinion, the practice of P. S. is generally  
adopted. It was the practice of Dr. Baillie of  
New York to bleed ad deliquium animi. The  
same practice is pursued by Dr. Reid of Ala-  
bama with great success. This practice is  
also approved & taught by Dr. Theobald. Dr.  
Rush in his last treatise upon this disease  
(recorded in his Medical Observations & Inquiries,  
seems to approve of bleeding but prefers fre-  
quent and small bleedings, to the sudden ab-  
straction of a large quantity of blood at a time



But the advantages of copious bleeding, are now  
~~too~~ well attested to be affected by even the opi-  
-nion of Dr Rush, it has so this as it has in  
all other highly inflammatory affections a de-  
-cidedly more beneficial effect than small  
bleedings those, & frequently repeated When the  
disease is completely formed it should constitute  
our chief remedy, and should precede the appli-  
-cation of all others. But in the former state which  
may terminate in either the nervous and slight  
disorders require the administration of an Emetic  
together with the application of the leech  
which will frequently remove the morbid  
-humours as well as the exhibition of other remedies  
unnecessary before it is expedient to use the lancet.  
Blood should be drawn from the jugular vein espe-  
-cially in cases of infants it can not only be drawn  
with great facility from the neck, from that vein  
more than from the arm or elsewhere but much more  
is easily - it is easily, which as I have remarked, is an  
-object of paramount consideration. The operation itself  
should be performed as gently as possible, & the  
-rate of blood Most Physicians concur in opinion on  
-this point to be gradually discontinued if the administra-  
-tion of Emetics in this disease, they should immediately  
-by successa Venesection, be given in large and re-



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-peated doses until sufficient vomiting is induced  
but such as being an active vomit is usually re-  
-fused. Should it prove delirious in its action the pa-  
-tient should be immersed in a warm bath this rarely  
-fails producing the desired effect of vomiting & action  
in relaxing the system & dissolving spasm and  
producing the happiest effects. Should never be  
-indicated if well then it is necessary to expect the  
-crisis. Generally the indications for its application  
are a continuance of the longest & difficult breathing  
-then relieve these symptoms by discharging the con-  
-ditions of the brain which consists of a thick rose  
-mucous matter in swelling or irritation and spasms  
-spasm. The application of blisters has been objected  
-to by some physicians in this disease, but their temper-  
-al effects are now too well known to admit a sha-  
-don of doubt as to the propriety and usefulness of  
-their application, they should be applied upon the  
-throat from ear to ear, upon the breast and in some  
-cases to the extremities. In urgent cases warm sti-  
-mulating cataplasms may frequently be advantage-  
-ously applied in their stead I have had opportuni-  
-ties of witnessing the happiest results from their  
-use. Should they prove beneficial in no other respect  
-they will irritate the skin & thereby rendering it  
-more susceptible <sup>to the contagion</sup> of an ~~this~~ matter. They should be com-





found of horse radish, mustard seed bran & vinegar  
mixed in the consistence and form of a poultice  
and applied to the throat as warm as the patient can  
bear it. In the mean time a decoction should be ad-  
ministered as I am rather in the habit of thinking that  
is perhaps the best, and Calomel, I think should be  
administered in large and repeated doses. Dr. Rush  
celebrates Calomel in this disease to be repeated of  
some three or four times independently of the evacuation  
at intervals & Dr. Harnilton of Edinburgh relates several  
cases where it in the cure. In the disease he has seen  
children at the age of two years throw up 10 to 15  
drachms in the course of four and twenty hours  
& Dr. Sympson in one instance gave a child of three months  
1/2 drachm of Calomel in one day. It has rarely been  
known to cause dysentery in children whose ages  
rendered them liable to it when given in these  
large quantities, remarkable and Rush remarks  
from the circumstances of the case, that being smaller than  
the intention Dr. Harnilton made of giving it  
is to give a dose of from one to five grains ac-  
cording to the age of the child every six hours till the  
vomiting is evidently relieved when it is gradu-  
ally to be discontinued.

as Antimony is the surface of the body it's pro-  
mote expectorations & cathartics and expectorants



should be used. Some Physicians have doubted the ben-  
 efit of the effects of the Phosphorus in cases of catarrh  
 seems to manifest and confirm the opinion of those  
 who have been in favour of them. As this is a Phosphorus  
 and a restorative the Antimonial and Strychnine  
 Polyphosphate are preferable for the application of  
 the last mentioned article as a remedy in this dis-  
 ease but are indebted to Dr. Squire & Mayhew  
 it appears peculiarly adapted in this disease  
 the best mode of exhibiting it is <sup>in strong</sup> solution in  
 small quantities but frequently repeated.

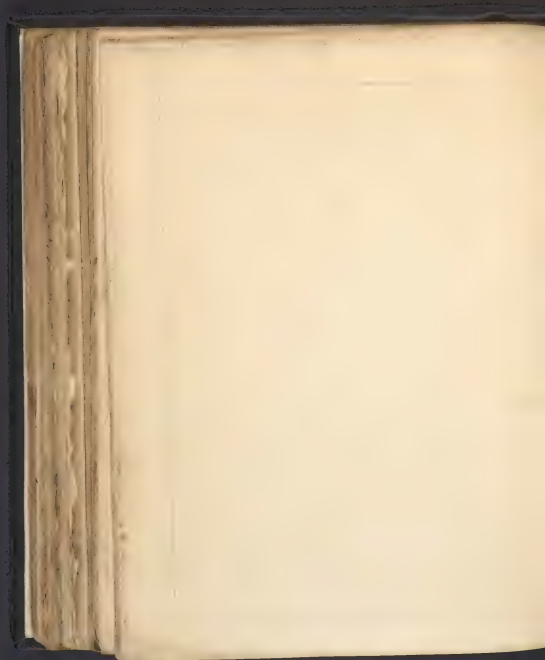
Inhalation the vapour arising from hot vin-  
 egar and water is a very useful with the addi-  
 tion of a small quantity of ether will also pro-  
 mote sedation & relaxation - It forms a very  
 beneficial to the Patient & very convenient way  
 of administering Steam is being brought a large  
 and hot Compress to the Inhalation the vapour  
 arising from green. It will also be well for the  
 Patient to swallow frequently some emollient  
 such as oil or mucilage.

Sedatives has been mentioned by some authors  
 as a remedy in this disease and is said in some  
 cases to have been advantageously exhibited but  
 it is now rarely administered and I do not just-  
 ly deserve to be omitted in this article.



the many diseases, for which it had a peculiar look  
in an unbroken circulation we are taught that it  
should never be used where it is indicated.

The above mentioned conditions & circumstances of the system among symptoms  
may indicate, with the exception of the early  
stages of *Hymenorrhoea* & *Trachia*. It now remains  
for you to learn of the disease in a more appro-  
priate & directed form, the inflammation which  
in the early stages had been confined to the  
is the narrow and upper part of the trachea  
that it has become more distended takes deeper  
root, affecting the rest of the trachea & bronchi  
and sometimes the substance. The lungs the  
patient is seized with the most abundant, often  
long frequently with the lungs & trachea, & in-  
tending at the time the sensation of an uneasy  
variable weight upon the chest, at others that  
of immediate suffocation the trachea becomes  
loaded with a viscid phlegm, the lungs are  
enlarged. There is a more abundant voice and  
dry cough, fever, great restlessness and an appear-  
ance of considerable weakness & even the whole  
may without the assistance of much, besides, gain  
the circulation is impeded, the countenance and  
sweat are cold, the pulse full & bounding. These



symptoms would seem to call loudly for the can-  
cet but from the circumstance of the concentra-  
ted state of the blood in the lungs - when large  
vessels are obliterated must be performed with care  
- as we are liable the sudden abstraction of  
a large quantity of blood under these circum-  
stances would be very probably, from, & at as. de-  
- pending is requisite but the blood should be drawn  
in small quantities & <sup>repeated</sup> at the object, when  
the system gradually becomes relaxed should be  
applied cautiously over the chest, or as they, & re-  
- move their effects more immediately subacute  
or chronic, among most of the effects of the  
injection - similar let may be applied to the  
blood. Besides the warm bath are also beneficial  
in this stage of the disease. The trochanterics and  
expulsioms already mentioned should now also  
be exhibited and salomel should be given in large  
and often repeated doses it is given with a  
view to evacuate the colic, not to pro-  
- mote expectoration & induce phlegm, I have  
known my receptor in this stage of the disease  
administer ten grains of salomel every 24 hours  
for two days successfully then to continue  
it in diminished doses until complete phlegm  
was induced the occurrence of which is considered





almost invariably indicative of a happy termination  
of the disease. Though this stage of the disease is  
evidently *spasmodic* *spasmodic*, the efficacy of  
antispasmodics does not appear well to be well  
attested. I have myself had opportunities of witness-  
ing their <sup>key</sup> exhibition in this stage of convulsions, and ex-  
cept when administered in the form of *Clonius*, have  
never observed the least sensible good effects from  
them, but when exhibited in this form I have known  
the most happy effects result from them, and  
have been not a little surprised that authors  
have not more strenuously urged their application  
A solution of *apapomata* I have usually seen pre-  
pared for the above purpose. Injections of *Op* of  
*Lormentine* sufficiently diluted and combined with  
the yolk of an egg will also be productive of  
good effects. Topical bleeding from the *thoracica*  
chest is advised, and will frequently be found bene-  
ficial, especially where *venesection* is indicated but  
the system is too much exhausted to justify the  
the operations. What would be the effects here of dry  
cupping as has been recommended in *Pelliculis*  
*Polymonalis*? The *interphlogistic* region should  
be strictly observed through the whole course of  
the disease (except as to the application of *colic*)



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The patient should be kept warm, and it will be prudent in cases of infants to keep them in an elevated posture to guard against suffocation.

When the symptoms continue notwithstanding the application of the above mentioned remedies, Tracheotomy has been recommended as a dernier resort. Michaelis warmly advocates it he recommends it in all cases where the symptoms do not readily yield to other remedies, but the propriety and usefulness of the operation is questioned by others, they say although the upper part of the hardened membranous substance might be extracted, still it would be impossible to remove the fluid portion which fills the lower part of the trachea and which is one of the chief obstacles to respiration. The operation has never to my knowledge been performed in the United States, and I believe when the remedies mentioned are judiciously and energetically applied, the formation of the membrane is a rare occurrence -

